

United States Of America  
Federal Communications Commission  
Washington, D.C.

Proposed Regulatory Oversight of )  
Broadband Over Power Lines ) FCC Docket No. 04-37  
(BPL) Operations )

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Reply Comments Of  
The National Antenna Consortium (NAC)  
And The Amherst Alliance

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The NATIONAL ANTENNA CONSORTIUM (NAC) is a non-profit advocacy group, composed of those who own, use or manufacture antennas and/or own, lease or build commercial communications towers. THE AMHERST ALLIANCE is a citizens' advocacy group which favors Low Power Radio in particular -- and more open access to the airwaves, by everyday Americans and small businesses, in general.

These joint Reply Comments, in FCC Docket 04-37, supplement our joint Written Comments of May 1, 2004. Our group also made a February 19, 2004 joint request for a 2-month extension of the established comment period. The request was denied by the Commission, along with similar requests from other parties.

**New Developments In New York City**

At the outset, we will use these Reply Comments as a vehicle for referencing, On The Record, in this Docket, a relevant intervening event. Since our Written Comments were filed on May 1, Hearings by the 9/11 Commission have made clear the extent to which the loss of life was increased by problems with emergency communications.

These revelations underscore the need to *improve*, rather than *impede*, our nation's standing emergency communications systems. Unless the future use of Broadband Over

Power Lines (BPL) technologies is made subject to very careful oversight, as well as major measures to prevent or minimize the interference it generates, BPL operations will take emergency communications systems in exactly the *wrong* direction -- toward *less* quality and reliability, instead of more.

## **Our Continuing Objection To Truncated Procedures**

NAC and THE AMHERST ALLIANCE file these Reply Comments under a continuing objection to the truncated procedures under which FCC Docket 04-37 is being conducted.

We continue to believe, and assert, that the Commission is not allowing commenting parties sufficient time to assess recently released technical studies on BPL interference by the National Telecommunications and Information Administration.

## **The NTIA's Study Of BPL Interference**

The NTIA's recent study was not released to the public until April 28, 2004: 6 days (and 4 workdays) before the Written Comments deadline of May 3, 2004.

Only on April 28 did we learn that this is a *2-part* study. *Phase I* of the NTIA's study was released on April 28, but Phase II of the study is still pending.

Thus, unless the Commission reverses its denial of the various requests for a longer comment period, it will have allowed commenting parties only:

- 6 days to prepare Written Comments on Phase I of the NTIA study
- 36 days to prepare Reply Comments on Phase I of the NTIA study

*And*

- 0 days to prepare Written Comments on Phase II of the NTIA study
- 0 days to prepare Reply Comments on Phase II of the NTIA study

As we have stressed before, the FCC has yet to provide a solid "rationale for the rush" on BPL. Indeed, it has failed to provide any rationale at all, solid or otherwise.

April 28 made it clear that the FCC is even planning *total denial* of *any* opportunity for commenting parties to review and evaluate Phase II of the NTIA study. For all we know, the FCC may proceed to a final rule so quickly that even *its own staff* may be denied an opportunity to review and evaluate Phase II of the NTIA study.

In light of the revelation that a Phase II study is still pending, NAC and THE AMHERST ALLIANCE submitted on May 21 a *new* Motion for an extended comment period. We asked the FCC to keep the Reply Comments period open until *the later of*:

(a) Wednesday, September 1; or

(b) 2 months after public release of Phase II study.

In keeping with our May 1 Written Comments, our Motion also asked the FCC to re-issue the currently vague provisions of the proposed rule that concern interference prevention, interference mitigation and enforcement of standards. We proposed requiring Written Comments by *the later of*:

(c) Wednesday, September 1; or

(d) 2 months after publication of the re-issued provisions in the  
FEDERAL REGISTER.

We now reiterate the requests of our May 21 Motion in these Reply Comments. There is still time for the FCC to grant the Motion.

### **IEEE-USA's Criticism Of Proposed Rule's Interference Provisions**

We note that the INTERNATIONAL ELECTRICAL AND ELECTRONIC ENGINEERS of the United States of America (IEEE-USA), in their May 3 Written Comments, have offered an assessment which reinforces our call for re-issuance of the proposed rule's provisions on interference prevention, interference mitigation and enforcement.

We emphasize the following statement for the FCC's consideration:

We are concerned that the Commission's proposals for "interference mitigation" in the NPRM are inadequate in terms of being effective in resulting in timely resolution of interference problems in practice.

### **IEEE-USA's Call For A Longer Comment Period**

IEEE-USA's May 3 Written Comments have also echoed our concerns about the lack of adequate time for commenting parties to study the study by the NTIA.

In addressing the issuance of Phase I of the NTIA study on April 28, IEEE-USA said this to the FCC:

... the information contained in this report would have, *had it been available for sufficiently before the comment period in this Proceeding to permit a thorough review and analysis of its contents*, been a valuable resource for the public in the formation of its comments. [The emphasis is theirs, not ours.]

Based solely on the time needed for an adequate review and evaluation of the Phase I study *alone*, without taking into account the pending Phase II study, the Written Comments by IEEE-USA urge the Commission to extend the Reply Comments deadline by "at least 30 days" and preferably 45 days.

A 30-day extension would convert to a new Reply Comments deadline of Thursday, July 1 -- while a 45-day extension would yield a Reply Comments deadline of Thursday, July 15.

### **Earl Gosnell's Call For A Longer Comment Period**

In our May 1 Written Comments, we noted that requests for extension of the comment period have been filed in this Docket by ourselves, Nickolaus E. Leggett N3NL of Virginia and the AMERICAN RADIO RELAY LEAGUE (ARRL).

Since then, Earl S. Gosnell III of Oregon, who has submitted more than a dozen filings in Docket 04-37, has contacted us to state that he has also urged the FCC to provide a longer

comment period. While his request did not take the form of a formal Motion, it was nonetheless communicated to the Commission.

### **ARINC's Concern About Protecting Aviation**

In our Written Comments, we urged the FCC -- if it continues to allow BPL operations -- to establish "BPL-Free Zones", with a radius of 20 miles, around ground-to-air communications antennas, airports, military bases and similar facilities.

We acknowledge that such "BPL-Free Zones" are not a total solution to BPL interference problems. They do not protect emergency communications equipment which is mobile, as in police cars and ambulances. Further, they do not necessarily protect "both ends of the conversation" from BPL interference. Aircraft at cruising altitudes and ships at sea will presumably not be near power lines, but other transmitters and receivers might be.

Despite these imperfections, the proposed "BPL-Free Zones" are still a substantial improvement over the option of doing nothing to protect vital but sensitive facilities. *If* the Commission is determined to continue authorization of BPL operations, the proposed "BPL-Free Zones" will constitute an important form of damage containment.

We are, therefore, pleased to note that AERONAUTICAL RADIO, INC. (ARINC) has proposed the same concept of "BPL-Free Zones" in its May 3 Written Comments.

ARINC agrees with NAC and THE AMHERST ALLIANCE on the *concept* of such "buffers" around facilities which are both particularly sensitive to BPL interference *and* vital for the protection of life, property and/or national security. ARINC's proposed "BPL-Free Zones" would be somewhat smaller than the ones we have proposed, however. ARINC proposes a radius of 15 miles for each "BPL-Free Zone", while we have proposed a radius of 20 miles. This works out to a difference in area of 76 square miles for ARINC's proposal, as compared to 126 square miles for our proposal.

## **ShipCom's Concern About Protecting Maritime Operations**

The concept of a "BPL-Free Zone" has also been proposed by ShipCom, L.L.C. in its May 3 Written Comments. ShipCom, which operates four Public Coast Stations that provide ship-to-shore communications, asserts that such facilities are acutely susceptible to BPL interference. As with aviation communications and military communications, disruption of ship-to-shore communications can be life-threatening.

Disrupted radio raises the risk of ship collisions, oil tanker spills and other disasters.

Like us, ShipCom favors a "buffer" radius of 20 miles -- not 15.

Our original recommendation for 20-mile "BPL-Free Zones" did not explicitly include ship-to-shore radio facilities, but it should have. We hereby amend our proposal to correct that oversight.

## **Concerns, Expressed By NAS And Others, About Protecting Radio Astronomy**

We note that the NATIONAL ACADEMY OF SCIENCES (NAS), in its May 3 Written Comments, has joined NAC and THE AMHERST ALLIANCE in urging the FCC to act with great caution in encouraging greater use of BPL technologies.

NAS has expressed particularly strong concerns about the impact of BPL interference on radio astronomy: a vital but vulnerable scientific enterprise, both in terms of expanding human knowledge *and* in terms of permitting the safe exploration and commercialization of space. We remind the Commission that President Bush has declared space exploration, including a future mission to Mars, to be an important priority for the nation.

We note that strong concerns about the vulnerability of radio astronomy have also been expressed in May 3 Written Comments by PISGAH ASTRONOMY RESEARCH INSTITUTE and the SOCIETY OF AMATEUR RADIO ASTRONOMERS.

In light of the concerns expressed by these three knowledgeable parties, we further amend our May 3 proposal for “BPL-Free Zones” as follows:

1. In addition to including ground-to-air communications antennas, airports and military bases, and now *ship-to-shore communications antennas* as well, the 20-mile “BPL-Free Zones” should also protect *all radio observatories*.
2. As for our related proposal to establish *2-mile* “BPL-Free Zones” around hospitals, police stations, fire stations and separately sited emergency communications facilities, the 2-mile “BPL-Free Zones” should also protect any schools where RADIO JOVE classes are held and/or where electronic laboratory equipment is used by students during the course of their education.

## Conclusions

For the reasons set forth herein, *and/or* in our February 19 and May 1 filings in FCC Docket 04-37, we urge the FCC to act favorably upon all of our joint recommendations.

To highlight how new information has led us to alter the recommendations in our May 3 Written Comments, we summarize the differences below:

1. We requested an extension of the Written Comments deadline, in FCC Docket 04-37, until 2 months after public release of the NTIA study (Monday, June 28). *Now*, with the knowledge that only Phase I of the NTIA was issued on April 28, *we request an extension of the Written Comments deadline until 2 months after public release of Phase II of the NTIA study* (Wednesday, September 1 or later).
2. We requested re-issuance of the proposed rule, or at least portions of it, to make available for public comment a more detailed version of the contemplated interference mitigation measures. *Now we propose a specific Written Comments deadline for the re-issued proposed rule provisions, set at 2 months after publication of the re-issued proposed rule provisions in the FEDERAL REGISTER* (Wednesday, September 1 or later).



*And*

3. We advised the Commission that, if it nevertheless chooses to proceed directly to a final rule at this time, it should at least incorporate within that final rule certain “damage reduction” measures.
  - a. We recommended the establishment of 20-mile “BPL-Free Zones” around ground-to-air communications antennas, airports, military bases and similar facilities. *Now we recommend establishing 20-mile “BPL-Free Zones” around ship-to-shore communications antennas and radio observatories as well.*
  - b. We recommended the establishment of 2-mile “BPL-Free Zones” around hospitals, police stations, fire stations, separately sited emergency communications facilities and similar facilities. *Now we also recommend establishing 2-mile “BPL-Free Zones” around all schools in which RADIO JOVE classes are held and/or in which electronic laboratory equipment is used by students during the course of their education.*
  - c. We urged the FCC to revoke authorization for any BPL technologies which do not match, or exceed, the interference profile of the Corridor BPL technology. At present, the Corridor technology appears to be the lowest-interference BPL technology on the market: its performance should “set the bar” for the others.
  - d. We urged the FCC to adopt the proposal, offered by Nickolaus E. Leggett N3NL of Virginia, that all adaptive interference measures should be require to assure that at 3 different spectrum uses can be conducted within 200 feet of each other.

Respectfully submitted,

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Dated: \_\_\_\_\_  
May 27, 2004

I hereby certify that copies of these Reply Comments are being sent to IEEE-USA, Emmaus, Pennsylvania; Earl S. Gosnell III, Eugene, Oregon; ARINC, c/o David Hilliard, Esquire, Wiley, Rein & Fielding, Washington, D.C.; ShipCom, L.L.C., Mobile, Alabama; NATIONAL ACADEMY OF SCIENCES, Washington, D.C.; PISGAH ASTRONOMY RESEARCH INSTITUTE, Rosman, North Carolina; and SOCIETY OF AMATEUR RADIO ASTRONOMERS, Brevard, North Carolina.

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